

### **REMARKS/ARGUMENTS**

Applicants would like to thank the Examiner for the careful consideration given the present application. By the present amendment, claims 1, 5-7, 23 and 25-28 remain in the application.

Claims 1 and 23 have been amended to incorporate limitations from respective dependent claims 3 and 24.

Claims 3, 8-22, 24 and 29-41 are canceled without prejudice.

New claims 42-47 are added by amendment. Support for these claims can be found at least at paragraph [0042] (page 31, lines 11-19) of the specification as filed.

Applicants respectfully request reconsideration and allowance.

It is noted that some of the documents listed in the Information Disclosure Statement (IDS) dated June 26, 2006 are not received by the Examiner. Thus, the IDS and missing documents are re-submitted with the present amendment.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The Office action asserted that the recitation such as “a second frequency divider being connected to the first quadrature local oscillation signal output for dividing the first quadrature local oscillation signal and outputting a second in-phase local oscillation signal and a second quadrature local oscillation signal” must be shown or the feature(s) canceled from the claim(s). Applicants respectfully disagree with this assertion. The above-mentioned recitation is shown in the drawings. For example, the second frequency divider **20** is shown in Figs. 1, 3-5, 9, and 10; the second frequency divider **601** is shown in Figs. 6, 7, 12, and 13. The drawings also show that the second frequency divider **20/601** is connected to the output of the first divider **19** and outputs a second in-phase local

oscillation signal and a second quadrature local oscillation signal. Therefore, Applicants respectfully request the objection as it applies to the drawings being withdrawn.

### ***Specification***

The abstract of the disclosure is objected to because it is not limited to a single paragraph and the reference numeral of the elements should be put inside parenthesis. The abstract has been amended accordingly per the Examiner's comment, and thus, the objection as it applies to the abstract is moot.

The disclosure is objected to for informalities. The Office action asserted that the disclosure of page 53, lines 3-7 is incorrect and should be deleted. Applicants respectfully disagree on the assertion and request the Examiner to provide the reason why the disclosure is considered to be incorrect in the next Office action.

### ***Claim Rejections - 35 USC § 112***

Claims 1-15 and 23-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Office action asserted that the details of claimed limitations regarding the second frequency divider in independent claims 1 and 23 are not seen in the description of the preferred embodiment. Applicants respectfully disagree on the assertion. The specification has described the claimed subject matter in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For example, page 27, paragraph [0035] to page 33, paragraph [0045] and Figs. 1-3 describe the structures and functions of the frequency dividing section **22** and the control section **23** which achieve the functions of the second frequency divider **20** as recited by claims 1 and 23. In particular, page 30, paragraph [0041] to page 31, paragraph [0042] and Fig. 3 describe the

details of the claim limitation regarding the second frequency divider **20**. Therefore, Applicants respectfully request the rejection under 35 U.S.C. 112 being withdrawn.

***Claim Rejections - 35 USC § 103***

Claims 1 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkram *et al.* (US 6,963,236), hereinafter “Berkram. The rejection is respectfully traversed for at least the following reasons.

Initially, it is noted that independent claims 1 and 23 have been amended to include “a dummy circuit” which was previously included in respective dependent claims 3 and 24. At least in part because claims 3 and 24 were not rejected based on prior art in the Office action, Applicants believe that the claimed subject matter as patentable.

More specifically, independent claims 1 and 23, have been amended to recite “a dummy circuit being connected to the first quadrature local oscillation signal output and having input impedance equal to that of the second frequency divider.” Berkram does not teach or suggest the dummy circuit as claimed, or otherwise render it obvious. Accordingly, amended claims 1 and 23 and their respective dependent claims are allowable over the prior art of record.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No.: NGB-40724.

Respectfully submitted,  
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Date: March 11, 2010